# Federal Operating Permit
# Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

| | |
|---|---|
| Permittee Name: | Lynchburg Foundry, LLC d/b/a INTERMET Archer Creek Foundry |
| Mailing Address: | P.O. Box 11589<br>Lynchburg, VA 24506 |
| Facility Name: | INTERMET Archer Creek Foundry |
| DEQ Registration Number: | 30121 |
| Facility Location: | 1132 Mt. Athos Road, Campbell County Virginia |

| | |
|---|---|
| Permit Number | SCRO30121 |
| Permit Effective Date | October 7, 2007 |
| Permit Expiration Date | October 6, 2012 |
| Signature Date | October 5, 2007 |

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T.L. Henderson
Regional Director, Department of Environmental Quality

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# I. Facility Information

**Permittee**
Lynchburg Foundry, LLC d/b/a INTERMET Archer Creek Foundry
P.O. Box 11589
Lynchburg, VA 24506

**Responsible Official**
William D. Hopkins
General Plant Manager

**Facility**
INTERMET Archer Creek Foundry
1132 Mt. Athos Road
Campbell County

**Contact Person**
Troy Carpenter
Environmental Engineer
(434) 528-8397

**County-Plant Identification Number:** 51-031-00101

**Facility Description:** NAICS / SIC Code 331511 / 3321 – Gray and Ductile Iron Foundry

INTERMET Archer Creek Foundry manufactures gray and ductile iron castings for the automotive and other industries.

# II. Emission Units

Equipment to be operated consists of:

## A. Significant Emissions Units

| Emission Unit ID | Stack ID | Emission Unit Description | Size/Rated Capacity (Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|---|---|---|---|---|---|---|---|
| **Fuel Burning Equipment** | | | | | | | |
| ACE03 | ACPV102 | Cupola Preheater | 34.7 MMbtu/hr | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE10 | ACPV01 | Ladle heaters (No. 2 and Natural gas fired) | 0.98 to 2.1 MMbtu/hr each | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE11 | --- | Misc. natural gas space heaters, including makeup air handling units 7402474, 7402571, 7402506-01, and 7402505-01 | Up to and including 10 MMbtu/hr each | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| **Process Equipment** | | | | | | | |
| ACE01 | --- | Charge preparation | 65 $tons_{METAL}$/ hr | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE02 | ACDC02 | Cupolas | 65 $tons_{METAL}$/ hr | CO combustor & Fabric filter | ACC01 & ACDC02 | CO & PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE04 | ACDC02 | Cupola/dry powder injection system (EDAP) | 180 $lb_{POWDER}$/hr | Fabric filter | ACDC02 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |

| Emission Unit ID | Stack ID | Emission Unit Description | Size/Rated Capacity (Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|---|---|---|---|---|---|---|---|
| ACE05 | ACPV02 thru 12, & ACDC03 | Shaking Ladles (treatment) | 65 $tons_{METAL}$/ hr | Fabric filter (Note 3) | ACDC03 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE06 | ACPV02 thru 12, & ACDC03 | Ladles (transfer & treatment) | 65 $tons_{METAL}$/ hr | Fabric filter (Note 3) | ACDC03 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE07, 08, & 09 | ACPV02 thru 12, & ACDC03 | (3) Holding Furnaces | 65 $tons_{METAL}$/ hr | Fabric filter (Note 3) | ACDC03 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE12 & 13 | ACPV63 thru 69, & ACNPV71 thru 74 | Pouring | 65 $tons_{METAL}$/ hr | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE14 & 15 | ACDC12, 13 & 14, ACDC18, ACPV50 thru 60, ACNPV76 thru 81 | Mold cooling system | 65 $tons_{METAL}$/ hr | Fabric filter | ACDC12, 13, 14 & 18 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE16 & 17 | ACDC12, 13 & 14 | Punchout/Shakeout | 65 $tons_{METAL}$/ hr | Fabric filter | ACDC12, 13 & 14 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE18 & 19 | ACPV22 thru 35 | Casting cooling system | 65 $tons_{METAL}$/ hr | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE45 | ACDC01 | Knockoff/Sorting conveyor | 65 $tons_{METAL}$/ hr | Fabric filter | ACDC01 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |

| Emission Unit ID | Stack ID | Emission Unit Description | Size/Rated Capacity (Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|---|---|---|---|---|---|---|---|
| ACE20 | ACDC06 thru 11 & ACDC19 | Shot Blasting | 65 $tons_{METAL}$/ hr | Fabric filter | ACDC06 thru 11 & ACDC19 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE21 | ACDC06 thru 11 & ACDC19 & ACPV13 thru 17 | Casting finishing equipment | 65 $tons_{METAL}$/ hr | Fabric filter | ACDC06 thru 11 & ACDC19 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE22 | --- | Paint Dipping operations | --- | --- | --- | --- | --- |
| ACE23 | --- | Rust preventative operations | --- | --- | --- | --- | --- |
| ACE25A1 ACE25A2 ACE25B1 ACE25B2 | ACPV36 & 37 | Core mullers | 46,206 $lb_{SAND}$/hr (total) | Fabric filter | ACDC05 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE24A ACE24B | ACDC12, 13, & 14 | Mold mullers | --- | Fabric filter | ACDC12, 13, & 14 | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE26 thru 35 | ACPV36, 37, ACC16 | Core machines | 46,206 $lb_{SAND}$/hr (total) | Scrubber | ACC16 | VOC as Triethylamine | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE38 | --- | Amine gas distribution system | 15 lb / hr | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE39 | ACDC12, 13, & 14 (Note 2) | Storage bins, conveyors & elevators, and other misc. equipment | --- | --- | ACDC12, 13, & 14 (Note 2) | PM | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACE47 & 48 | ACDC16 & 17 | (2) storage silos | 5,000 $ft^3$, each | Fabric filter | ACDC16, & 17 | PM | 6/25/01 |

| Emission Unit ID | Stack ID | Emission Unit Description | Size/Rated Capacity (Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|---|---|---|---|---|---|---|---|
| ACE 49 thru 52 | --- | (4) pneumatic transporters | 5 tons/hr, each | --- | --- | --- | 6/25/01 |
| ACE53 | --- | (1) mixer and load-out station | 180 tons/hr | Enclosure and wetting | --- | PM | 6/25/01 |
| ACT01 | --- | Triethylamine Tank | 10,000 gal | --- | --- | --- | 12/7/06 as amended 2/14/07 and 4/30/07 |
| ACT02 | --- | No. 2 Fuel Oil Tank; Installed 6/30/93 | 20,000 gal | --- | --- | --- | --- |
| ACT03-06 | --- | (4) Propane Tanks | 1,000 gal each | --- | --- | --- | --- |
| ACT17 | --- | Misc. storage tanks | < 550 gallon each | --- | --- | --- | --- |
| ACE54 | --- | Primary jaw crusher | 60 tons per hour | Wet suppression | --- | PM | 9/5/01 |
| ACE55 | --- | Screen | 60 tons per hour | Wet suppression | --- | PM | 9/5/01 |
| ACE37 | ACPV70 | Core pattern dip tank | --- | --- | --- | --- | --- |
| ACE56 thru 57 | --- | 25.5” belt conveyors | 60 tons per hour | Wet suppression | --- | PM | 9/5/01 |
| ACE59 | ACE59 | Crusher engine | | --- | --- | --- | 9/5/01 |
| ACE60 | ACE60 | Screener engine | | --- | --- | --- | 9/5/01 |

Notes:

1. The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
2. Particulate emissions from sand storage silos are controlled by unnumbered bin vent filters.
3. Fabric filter control is partial (i.e. area exhaust).

### B. Insignificant Emissions Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

| Emission Unit No. | Emission Unit Description | Citation | Pollutant(s) Emitted (9 VAC 5-80-720 B) | Rated Capacity (9 VAC 5-80-720 C) |
|---|---|---|---|---|
| R&D | Research Foundry | 9 VAC 5-80-720 A 26 | --- | --- |
| ACE40 | Propane converter | 9 VAC 5-80-720 C 2 a | --- | 2.64 MMbtu/hr |
| ACE41 | Air compressor | 9 VAC 5-80-720 C 4 b | --- | 200 horsepower |
| ACE 42, & 43 | Emergency generators | 9 VAC 5-80-720 C 4 b | --- | 402 horsepower each |
| ACE44 | Pattern Shop | 9 VAC 5-80-720 B 1 & 2 | PM & VOC | --- |
| ACE46 | Annealing (Heat Treat) Oven | 9 VAC 5-80-720 C 2 a | --- | 8.75 MMbtu/hr |
| ACE58 | Emergency Generator | 9 VAC 5-80-720 C 4 b | --- | 536 horsepower |

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

## III. Fuel Burning Equipment Requirements

Including cupola preheater (ACE03), ladle heaters (ACE10), miscellaneous space heaters including makeup air handling units (ACE11), and storage tanks (ACT02 through ACT16)

### A. Limitations

1. The approved fuels for the fuel burning equipment at the foundry are natural gas, propane, and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, "Standard Specification for Fuel Oils". A change in the fuels may require a permit to modify and operate. For the purposes of this permit, the cupola preheater (ACE03) is considered fuel-burning equipment, and the cupolas (ACE02) are not considered fuel-burning equipment.
   (9 VAC 5-80-110 and Condition 14 and 15 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The foundry shall consume no more than $4.8 \times 10^{11}$ BTU per year from gaseous fuels. For the purposes of this permit, gaseous fuels are defined as natural gas and propane fired in stationary equipment. Of the $4.8 \times 10^{11}$ BTU per year from gaseous fuels, no more than $4.8 \times 10^{10}$ BTU per year shall be from the combustion of propane. Furthermore, of the $4.8 \times 10^{11}$ BTU per year from gaseous fuels, no more than the $82.3 \times 10^{9}$ BTU per year shall be combusted in makeup air handling units 7402474,

7402571, 7402506-01, and 7402505-01 combined. The annual limit on fuel usage shall be calculated monthly as the sum of each consecutive twelve (12) month period. (9 VAC 5-80-110 and Condition 16 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The foundry shall consume no more than 270,000 gallons of distillate oil per year in stationary equipment. The annual limit on fuel usage shall be calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 17 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. Emissions from the operation of the stationary, gaseous fuel-fired fuel burning equipment shall not exceed the limits specified below:

| | |
|---|---|
| Particulate Matter | 1.74 tons/yr |
| PM-10 | 1.74 tons/yr |
| Nitrogen Oxides (as $NO_2$) | 25.56 tons/yr |
| Carbon Monoxide | 19.20 tons/yr |
| Volatile Organic Compounds | 1.26 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period. These emissions are derived from the estimated overall emission contribution from operating limits. Compliance with this condition may be determined as stated in Conditions III.A.1, III.A.2and III.A.3.
(9 VAC 5-80-110 and Condition 29 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

5. Emissions from the operation of the distillate oil fired fuel burning equipment shall not exceed the limits specified below:

| | |
|---|---|
| Sulfur Dioxide | 9.69 tons/yr |
| Nitrogen Oxides (as $NO_2$) | 2.70 tons/yr |
| Carbon Monoxide | 0.68 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period. These emissions are derived from the estimated overall emission

contribution from operating limits. Compliance with this condition may be determined as stated in Conditions III.A.1, III.A.2, and III.A.3.
(9 VAC 5-80-110 and Condition 30 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

6. Visible emissions from fuel burning equipment shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

7. Fuel burning emissions shall be controlled by proper operation and maintenance. Operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions at minimum.
(9 VAC 5-80-110)

**B. Monitoring**

1. At least one time per calendar week an observation of the presence of visible emissions from each fuel burning equipment stack (ACPV102 and ACPV01) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the stack(s) with visible emissions resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the stack(s) with visible emissions, in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the affected stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the fuel burning equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

   The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the fuel burning equipment has not been operated for a given stack for any period during the week, it shall be noted in the log book.
   (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

## C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The consumption of natural gas in units of Btu per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. The combined consumption of natural gas in make up air handling units 7402474, 7402571, 7402506-1, and 740250-01 in units of Btu per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   c. The consumption of distillate oil in stationary equipment in units of thousands of gallons per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   d. The consumption of propane in stationary, fuel-fired equipment in units of Btu per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   e. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   f. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   g. Results of weekly opacity observations of the fuel burning stacks (ACPV102 and ACPV01), along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110 and Conditions 33.d, 33.e, 33.f, and 33.g of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The permittee, per 40 CFR 60, Subpart Kb 60.116b (a) and (b), shall keep readily accessible records showing the dimensions, and an analysis showing the capacity of the 20,000 gallon storage tank (ACT02).
   (9 VAC 5-50-410, 40 CFR 60 Subpart Kb, and 9 VAC 5-80-110)

# IV. Charge Preparation Operations
(ACE01)

## A. Limitations

1. Emissions from the charge preparation operation (ACE01) shall not exceed the limits specified below:

| | |
|---|---|
| Particulate Matter | 29.94 tons/yr |
| PM-10 | 29.94 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period. These emissions are derived from the estimated overall emission contribution.
(9 VAC 5-80-110 and Condition 18 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. Visible emissions from charge preparation (ACE01) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

## B. Monitoring

1. At least one time per calendar week an observation of the presence of visible emissions from the charge preparation operation (ACE01) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the charge preparation operation resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the affected area are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

The permittee shall maintain an observation log to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the charge preparation operation has not been operated for any period

during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

### C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   b. Results of weekly opacity observations of the charge preparation operation (ACE01), along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110)

## V. Cupolas and Particulate Conditioning System

(ACE02 and ACE04)

### A. Limitations

1. Particulate emissions from the cupolas (ACE02) including the cupola particulate conditioning system (ACE04) shall be controlled by a fabric filter (ACDC02). The fabric filter shall be provided with adequate access for inspection and shall be in operation when the ACE02 or ACE04 is operating.
   (9 VAC 5-80-110 and Condition 2 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. Carbon monoxide emissions from the cupolas shall be controlled by a combustor (ACC01). The combustor shall be provided with adequate access for inspection and shall be in operation when ACE02 is operating.
   (9 VAC 5-80-110 and Condition 6 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The annual production of the cupolas (ACE02) shall not exceed 299,400 tons of melted metal per year, calculated monthly as the sum of each consecutive twelve (12) month period.
   (9 VAC 5-80-110 and Condition 8 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. The cupola particulate conditioning system (ACE04) shall consume no more than 450 tons of additive powders per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 10 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

5. Visible emissions from the fabric filter (ACDC02) which controls the cupolas (ACE02) including the cupola particulate conditioning system (ACE04) shall not exceed 5% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 31 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

6. Emissions from the operation of the cupolas (ACE02) including the cupola particulate conditioning system (ACE04) shall not exceed the limits specified below:

| | | |
|---|---|---|
| Particulate Matter | 0.03 gr/dscf | 4.49 tons/yr |
| PM-10 | 0.03 gr/dscf | 4.26 tons/yr |
| Sulfur Dioxide | 3.25 lbs/hr | 7.49 tons/yr |
| Nitrogen Oxides (as $NO_2$) | 21.45 lbs/hr | 49.40 tons/yr |
| Carbon Monoxide | 6.50 lbs/hr | 14.97 tons/yr |
| Volatile Organic Compounds | 3.25 lbs/hr | 7.49 tons/yr |
| Lead | 0.33 lbs/hr | 0.76 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
(9 VAC 5-80-110 and Condition 19 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

**B. Monitoring**

1. The fabric filter (ACDC02) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 2 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The fabric filter (ACDC02) exhaust shall be equipped with a Tribosentry™ (or equivalent per DEQ approval) bag leak detector to measure relative particulate matter loadings. The signal from the bag leak detector shall be recorded continuously when the dust collector is in operation, excluding brief periods of instrument maintenance. The detector shall be equipped with an alarm that sounds when detection from the PM sensitivity setting is exceeded at the established response time. The establishment of sensitivity and response time settings will be determined during the detector's initial set up procedure. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. (9 VAC 5-80-110 and Condition 2 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The combustor (ACC01) shall be equipped with a device to continuously measure and record the outlet temperature for the control device and with a low temperature alarm device. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. (9 VAC 5-80-110 and Condition 6 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request. (9 VAC 5-80-110 and Condition 40 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

5. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the combustor (ACC01) controlling carbon monoxide (CO) from the cupola (ACE02). The approved monitoring plan shall be the attached CAM Plan (Attachment A, Section 3.1) or the most recent revision to this plan that has

been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition V.B.12; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition V.B.13; or (3) otherwise approved by the DEQ conforming with Condition V.B.6 of this section, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

6. Each monitor shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:
   a. **Indicator**;
   b. **Measurement Approach**;
   c. **Indicator Range or Condition(s) for Range Development**; and
   d. The following **performance criteria**:
      i. **Data Representativeness**;
      ii. **Verification of Operational Status**;
      iii. **QA/QC Practices and Criteria**;
      iv. **Monitoring Frequency;**
      v. **Data Collection Procedures**;
      vi. **Averaging Period.**

   Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9 VAC 5-80-230.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

7. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

8. At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
   (9 VAC 5-80-110 E and 40 CFR 64.7(b))

9. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the combustor (ACC01) is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the

monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7(c))

10. Upon detecting an excursion or exceedance, the permittee shall restore operation of the cupola (ACE02) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(1))

11. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))

12. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition XX.E) notify the Director, South Central Region and submit a revised CAM Plan for approval to the Director, South Central Region to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 E, 40 CFR 64.7(e), and 40 CFR 64.6(c))

13. If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the cupola (ACE02) for a semiannual reporting period, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to the CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most

recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the Director, South Central Region within 30 days of the revision date. For the purposes of this condition, the most recent version of the CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.
(9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

14. Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10.
(9 VAC 5-80-110 and 40 CFR 64.10)

15. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 F and 40 CFR 64.9(b))

16. The permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by Condition XX.C.3 of this permit to the Director, South Central Region. Such reports shall include at a minimum:

    a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

    b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and

    c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

    (9 VAC 5-80-110 F and 40 CFR 64.9(a))

17. At least one time per calendar week an observation of the presence of visible emissions from the fabric filter stack (ACDC02) for the cupolas (ACE02) including the cupola particulate conditioning system (ACE04) shall be made. The presence of visible emissions shall require the permittee to:

a. take timely corrective action such that the charge preparation operation resumes operation with no visible emissions, or,

b. conduct a visible emission evaluation (VEE), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the affected area are 5 percent opacity or less. If any of the 15-second observations exceeds 5 percent opacity, the observation period shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 5 percent opacity.

The permittee shall maintain an observation log to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the cupolas (ACE02) and the cupola particulate conditioning system (ACE04) have not been operated for any period during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

## C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. Annual throughput of the cupolas (ACE02) in units of tons of melted metal per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. Annual throughput of the cupola particulate conditioning system (ACE04) in units of tons of additive powders per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   c. For each bag leak detection system, records of monthly QA checks to include a response test and electronic drift checks (if applicable). The date, time, and condition of each sensor as-found and description of any actions taken should be recorded. Log entries should be signed by the person conducting the inspection, testing, or maintenance.

   d. For each bag leak detection system, records of an initial bag leak detector set up (per procedure), and any adjustments due to process changes. Documentation should include initial instrument settings (numerical if applicable) or description of how each setting (baseline (sensitivity), response time, and alarm level) is established.

e. For each bag leak detection system, records of annual set up checks if the detector's settings have not been adjusted within a year. If process changes require system parameters to be adjusted, the date, description and reason for the adjustment should be documented and signed.

f. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

g. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

h. Results of weekly opacity observations of cupolas (ACE02) including the cupola particulate conditioning system (ACE04), along with details regarding any necessary corrective actions.

i. Monitoring results from the differential pressure monitoring device for the fabric filter (ACDC02) and monitoring results from the temperature recording device for the outlet of the combustor (ACC01).

j. Results of all stack tests.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Conditions 33.a, 33.j, 33.k, and 33.l of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

**D. Testing**

1. At a frequency not to exceed once every five years, the permittee shall conduct a stack test at stack (ACDC02) to demonstrate compliance with the nitrogen oxides, sulfur dioxide, and carbon monoxide pound per hour emission limits contained in Condition V.A.6 of this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests shall be arranged with the South Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the South Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110 and 9 VAC 5-50-30)

# VI. Metal Treatment Operations

(ACE05 through ACE09)

## A. Limitations

1. Particulate emissions from metal treatment operations (ACE05 through ACE09) shall be captured to the extent noted in the description in the amendment to the permit application dated May 12, 1997 and the captured portion shall be controlled by a fabric filter (ACDC03). The fabric filter shall be provided with adequate access for inspection and shall be in operation when any metal treatment equipment is operating. (9 VAC 5-80-110 and Condition 5 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. Emissions from the operation of the metal treatment operations (ACE05 through ACE09) shall not exceed the limits specified below:

| | | |
|---|---|---|
| Particulate Matter | 221.39 lbs/hr | 509.88 tons/yr |
| PM-10 | 177.11 lbs/hr | 407.90 tons/yr |
| Volatile Organic Compounds | 0.33 lbs/hr | 0.75 tons/yr |

   Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
   (9 VAC 5-80-110 and Condition 20 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. Visible emissions from metal treatment operations (ACE05 through ACE09) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
   (9 VAC 5-50-80 and 9 VAC 5-80-110)

## B. Monitoring

1. The fabric filter (ACDC03) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
   (9 VAC 5-80-110 and Condition 5 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 and Condition 40 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter (ACDC03) controlling particulate matter from the metal treatment operations (ACE05 through ACE09) as specified in Condition VI.A.1. The approved monitoring plan shall be the attached CAM Plan (Attachment A, Section 3.4) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition VI.B.10; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition VI.B.11; or (3) otherwise approved by the DEQ conforming with Condition VI.B.4 of this section, including, but not limited to, changes initiated by DEQ.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

4. Each monitor shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:
   a. **Indicator**;
   b. **Measurement Approach**;
   c. **Indicator Range or Condition(s) for Range Development**; and
   d. The following **performance criteria**:
      i. **Data Representativeness**;
      ii. **Verification of Operational Status**;
      iii. **QA/QC Practices and Criteria**;
      iv. **Monitoring Frequency;**

v. **Data Collection Procedures**;
vi. **Averaging Period.**

Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9 VAC 5-80-230.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

5. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

6. At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9 VAC 5-80-110 E and 40 CFR 64.7(b))

7. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that metal treatment is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7(c))

8. Upon detecting an excursion or exceedance, the permittee shall restore operation of metal treatment (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(1))

9. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
   (9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))

10. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition XX.E) notify the Director, South Central Region and submit a revised CAM Plan for approval to the Director, South Central Region to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
    (9 VAC 5-80-110 E, 40 CFR 64.7(e), and 40 CFR 64.6(c))

11. If the number of exceedances or excursions exceeds 5 percent duration of the operating time for metal treatment for a semiannual reporting period, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to the CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the Director, South Central Region within 30 days of the revision date. For the purposes of this condition, the most recent version of the CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.
    (9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

12. Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10.
    (9 VAC 5-80-110 and 40 CFR 64.10)

13. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
    (9 VAC 5-80-110 F and 40 CFR 64.9(b))

14. The permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by Condition XX.C.3 of this permit to the Director, South Central Region. Such reports shall include at a minimum:

    a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

    b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and

    c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

    (9 VAC 5-80-110 F and 40 CFR 64.9(a))

15. At least one time per calendar week an observation of the presence of visible emissions from the shared metal treatment operations stacks (ACPV02 through ACPV12) shall be made. The presence of visible emissions shall require the permittee to:

    a. take timely corrective action such that the stack with visible emissions resumes operation with no visible emissions, or,

    b. conduct a visible emission evaluation (VEE) on the stacks (ACPV02 through ACPV12), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

    The permittee shall maintain a stack observation log for the stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the metal treatment operation has not been operated for any period during the week, it shall be noted in the log book.
    (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

### C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   b. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   c. Results of weekly opacity observations of the metal treatment operations stacks (ACPV02 through ACPV12), along with details regarding any necessary corrective actions.

   d. Results of all stack tests.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110)

### D. Testing

1. At a frequency not to exceed once every five years, the permittee shall conduct a stack test for PM and PM-10 on the metal treatment operations (ACE05 through ACE09) at stack (ACDC03) to demonstrate compliance with the pound per hour emission limits contained in Condition VI.A.2, of this permit as corrected by Condition VI.A.1 of this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests shall be arranged with the South Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the South Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
   (9 VAC 5-80-110 and 9 VAC 5-50-30)

## VII. Mold Pouring Operations

(ACE12 and ACE13)

### A. Limitations

1. Emissions from the operation of the mold pouring operations shall not exceed the limits specified below:

| | | |
|---|---|---|
| Particulate Matter | 8.00 lbs/hr | 18.41 tons/yr |
| PM-10 | 8.00 lbs/hr | 18.41 tons/yr |
| Sulfur Dioxide | 1.30 lbs/hr | 2.99 tons/yr |
| Nitrogen Oxides (as $NO_2$) | 0.65 lbs/hr | 1.50 tons/yr |
| Volatile Organic Compounds | 9.10 lbs/hr | 20.96 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
(9 VAC 5-80-110 and Condition 21 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. Visible emissions from mold pouring operations shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

**B. Monitoring**

1. At least one time per calendar week an observation of the presence of visible emissions from the mold pouring stacks (ACPV63 through ACPV69 and ACNPV71 through ACNPV74) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

   The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective

action, and the name of the observer. If the mold pouring equipment has not been operated for any period during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

### C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   b. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   c. Results of weekly opacity observations of the mold pouring stacks (ACPV63 through ACPV69 and ACNPV71 through ACNPV74), along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110)

## VIII. Mold Cooling System

(ACE14 and ACE15)

### A. Limitations

1. Particulate emissions from the mold cooling system (ACE14 and ACE15) shall be captured to the extent noted in the description in the amendment to the permit application dated May 12, 1997 and the captured portion shall be controlled by fabric filters (ACDC12 through ACDC14). Each fabric filter shall be provided with adequate access for inspection and shall be in operation when mold cooling is operating.
   (9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. Particulate emissions from the mold cooling stacks (ACNPV75 and G99) shall be controlled by fabric filter (ACDC18). The fabric filter shall be provided with adequate access for inspection and shall be in operation when the equipment is operating.
   (9 VAC 5-80-110)

3. Emissions from the operation of the mold cooling system (ACE14 and ACE15) shall not exceed the limits specified below:

| | | |
|---|---|---|
| Particulate Matter | 3.56 lbs/hr | 8.21 tons/yr |
| PM-10 | 3.56 lbs/hr | 8.21 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
(9 VAC 5-80-110 and Condition 22 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. Visible emissions from the mold cooling system (ACE14 and ACE15) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

**B. Monitoring**

1. Each fabric filter (ACDC12 through ACDC14 and ACDC18) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The fabric filter (ACDC12 through ACDC14) exhaust shall be equipped with a Tribosentry™ (or equivalent per DEQ approval) bag leak detector to measure relative particulate matter loading. The detector shall be equipped with an alarm that is activated when detection from the PM sensitivity setting is exceeded at the established response time. The establishment of the sensitivity and response time settings to be determined during the initial setup procedure. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 40 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. At least one time per calendar week an observation of the presence of visible emissions from the mold cooling system stacks (ACDC18, ACPV50 through ACPV60 and ACNPV76 through ACNPV81) shall be made. The presence of visible emissions shall require the permittee to:

a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the mold cooling system has not been operated for any period during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

## C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. For each bag leak detection system, records of monthly QA checks to include a response test and electronic drift checks (if applicable). The date, time, and condition of each sensor as-found and description of any actions taken should be recorded. Log entries should be signed by the person conducting the inspection, testing, or maintenance.

   b. For each bag leak detection system, records of an initial bag leak detector set up (per procedure), and any adjustments due to process changes. Documentation should include initial instrument settings (numerical if applicable) or description of how each setting (baseline (sensitivity), response time, and alarm level) is established.

   c. For each bag leak detection system, records of annual set up checks if the detector's settings have not been adjusted within a year. If process changes require system parameters to be adjusted, the date, description and reason for the adjustment should be documented and signed.

   d. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   e. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   f. Results of weekly opacity observations of the mold cooling system stacks (ACDC18, ACPV50 through ACPV60 and ACNPV75 through ACNPV81), along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110 and Conditions 33.j, 33.k, and 33.l of the 12/7/06 Permit as amended 2/14/07 and 4/30/07))

# IX. Mold Punchout / Shakeout Operations

(ACE16 through ACE19)

## A. Limitations

1. Particulate emissions from mold punchout/shakeout operations (ACE16 and ACE17) shall be controlled by fabric filters (ACDC12 through ACDC14). The fabric filters shall be provided with adequate access for inspection and shall be in operation when any punchout/shakeout equipment is operating.
(9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. Emissions from the operation of the mold punchout/shakeout operations (ACE16 through ACE19) shall not exceed the limits specified below:

| | | |
|---|---|---|
| Particulate Matter | 2.08 lbs/hr | 4.79 tons/yr |
| PM-10 | 1.46 lbs/hr | 3.35 tons/yr |
| Volatile Organic Compounds | 34.00 lbs/hr | 78.29 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
(9 VAC 5-80-110 and Condition 23 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. Visible emissions from mold punchout/shakeout operations (ACE16 through ACE19) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

## B. Monitoring

1. The fabric filters (ACDC12 through ACDC14) shall each be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The fabric filter (ACDC12 through ACDC14) exhaust shall be equipped with a Tribosentry™ (or equivalent per DEQ approval) bag leak detector to measure relative particulate matter loading. The detector shall be equipped with an alarm that is

activated when detection from the PM sensitivity setting is exceeded at the established response time. The establishment of the sensitivity and response time settings to be determined during the initial setup procedure. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 and Condition 40 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filters (ACDC12 through ACDC14) controlling particulate matter from the Punchout/Shakeout operations (ACE16 through ACE19). The approved monitoring plan shall be the attached CAM Plan (Attachment A, Section 3.2) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition IX.B.11; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition IX.B.12; or (3) otherwise approved by the DEQ conforming with Condition IX.B.5 of this section, including, but not limited to, changes initiated by DEQ.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

5. Each monitor shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:
   a. **Indicator**;

b. **Measurement Approach**;
c. **Indicator Range or Condition(s) for Range Development**; and
d. The following **performance criteria**:
    i. **Data Representativeness**;
    ii. **Verification of Operational Status**;
    iii. **QA/QC Practices and Criteria**;
    iv. **Monitoring Frequency;**
    v. **Data Collection Procedures**;
    vi. **Averaging Period.**

Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9 VAC 5-80-230.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

6. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

7. At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9 VAC 5-80-110 E and 40 CFR 64.7(b))

8. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that Punchout/Shakeout (ACE16 through ACE19) is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7(c))

9. Upon detecting an excursion or exceedance, the permittee shall restore operation of Punchout/Shakeout (ACE16 through ACE19) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore

normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(1))

10. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))

11. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition XX.E) notify the Director, South Central Region and submit a revised CAM Plan for approval to the Director, South Central Region to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 E, 40 CFR 64.7(e), and 40 CFR 64.6(c))

12. If the number of exceedances or excursions exceeds 5 percent duration of the operating time for Punchout/Shakeout (ACE16 through ACE19) for a semiannual reporting period, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to the CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the Director, South Central Region within 30 days of the revision date. For the purposes of this condition, the most recent version of the CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.
(9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

13. Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10.
(9 VAC 5-80-110 and 40 CFR 64.10)

14. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 F and 40 CFR 64.9(b))

15. The permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by Condition XX.C.3 of this permit to the Director, South Central Region. Such reports shall include at a minimum:

    a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

    b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and

    c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

    (9 VAC 5-80-110 F and 40 CFR 64.9(a))

16. At least one time per calendar week an observation of the presence of visible emissions from the mold punchout/shakeout operations' stacks (ACPV22 through ACPV35) shall be made. The presence of visible emissions shall require the permittee to:

    a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

    b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the mold punchout/shakeout operations have not been operated for any period during the week, it shall be noted in the log book. (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

## C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. For each bag leak detection system, records of monthly QA checks to include a response test and electronic drift checks (if applicable). The date, time, and condition of each sensor as-found and description of any actions taken should be recorded. Log entries should be signed by the person conducting the inspection, testing, or maintenance.

   b. For each bag leak detection system, records of an initial bag leak detector set up (per procedure), and any adjustments due to process changes. Documentation should include initial instrument settings (numerical if applicable) or description of how each setting (baseline (sensitivity), response time, and alarm level) is established.

   c. For each bag leak detection system, records of annual set up checks if the detector's settings have not been adjusted within a year. If process changes require system parameters to be adjusted, the date, description and reason for the adjustment should be documented and signed.

   d. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   e. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   f. Results of weekly opacity observations of the mold punchout/shakeout operations' stacks (ACPV22 through ACPV35), along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110 and Conditions 33.j, 33.k, and 33.l of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

# X. Castings Finishing Operations

(ACE20, ACE21, ACE22, and ACE23)

## A. Limitations

1. Particulate emissions from the casting finishing operations (ACE20 and ACE21) shall be controlled by fabric filters (ACDC06 through ACDC11 and ACDC19). The fabric filters shall be provided with adequate access for inspection and shall be in operation when any finishing equipment is operating.
   (9 VAC 5-80-110 and Condition 3 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The finishing equipment (ACE20 and ACE21) shall process no more than 194,610 tons of castings per year, calculated monthly as the sum of each consecutive twelve (12) month period.
   (9 VAC 5-80-110 and Condition 9 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. Emissions from the operation of the castings finishing equipment (ACE20 and ACE21) shall not exceed the limits specified below:

   | | | |
   |---|---|---|
   | Particulate Matter | 0.07 lbs/hr | 0.10 tons/yr |
   | PM-10 | 0.07 lbs/hr | 0.10 tons/yr |

   Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
   (9 VAC 5-80-110 and Condition 24 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. Visible emissions from casting finishing operations (ACE20, ACE21, ACE22, and ACE23) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
   (9 VAC 5-50-80 and 9 VAC 5-80-110)

## B. Monitoring

1. Each fabric filter (ACDC06 through ACDC11 and ACDC19) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 3 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The fabric filter (ACDC06 through ACDC08) exhaust shall be equipped with a Tribosentry™ (or equivalent per DEQ approval) bag leak detector to measure relative particulate matter loadings. The detector shall be equipped with an alarm that is activated when detection from the PM sensitivity setting is exceeded at the established response time. The establishment of the sensitivity and response time settings to be determined during the detector's initial set up procedure. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 3 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-80-110 and Condition 38 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. At least one time per calendar week an observation of the presence of visible emissions from the casting finishing equipment stacks (ACDC09 through ACDC11

and ACPV13 through ACPV17) shall be made. The presence of visible emissions shall require the permittee to:

a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the casting finishing equipment operations have not been operated for any period during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

**C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The annual throughput of castings finished in units of tons of castings per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. For each bag leak detection system, records of monthly QA checks to include a response test and electronic drift checks (if applicable). The date, time, and condition of each sensor as-found and description of any actions taken should be recorded. Log entries should be signed by the person conducting the inspection, testing, or maintenance.

   c. For each bag leak detection system, record of an initial bag leak detector set up (per procedure), and any adjustments due to process changes. Documentation should include initial instrument settings (numerical if applicable) or description of how each setting (baseline (sensitivity), response time, and alarm level) is established.

d. For each bag leak detection system, record of annual set up checks if the detector's settings have not been adjusted within a year. If process changes require system parameters to be adjusted, the date, description and reason for the adjustment should be documented and signed.

e. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

f. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

g. Results of weekly opacity observations of the casting finishing equipment stacks (ACDC06 through ACDC11, ACDC19, and ACPV13 through ACPV17), along with details regarding any necessary corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 33.b, 33.j, 33.k, and 33.l of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

# XI. Core making Operations

(ACE26 through ACE35, ACE25A1, ACE25A2, ACE25B1, ACE25B2, ACE37, ACE38, and ACT01)

## A. Limitations

1. Volatile organic compounds emissions, as triethylamine, from core machine ACE35 shall be controlled by a packed bed scrubber (ACC16). The scrubber shall be provided with adequate access for inspection and shall be in operation when any core machine is operating.
(9 VAC 5-80-110 and Condition 7 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. Particulate emissions from the core mullers (ACE25A1, ACE25A2, ACE25B1, and ACE25B2) shall be controlled by a fabric filter (ACDC05). The fabric filter shall be provided with adequate access for inspection and shall be in operation when any core muller is operating. This fabric filter shall vent internally to the work area.
(9 VAC 5-80-110)

3. The core making operations shall consume no more than 722 tons of resin per year, and 150 tons of triethylamine per year, each calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 12 and 13 of 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. Visible emissions from the core machine scrubber (ACC16) shall not exceed 10% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-80-110 and Condition 32 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

5. Visible emissions from the core pattern dip tank (ACE37) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

6. Emissions through the triethylamine (TEA) scrubber stack (ACC16) from the operation of core machine J92-1 (ACE35) shall not exceed the limits specified below:

   | | |
   |---|---|
   | VOC (measured as TEA) | 0.12 lb/hr |

   This limit represents the VOC emissions contributed by TEA usage. As such, a compliance demonstration shall consider TEA emissions specifically to determine the VOC emissions being limited by this condition.
   (9 VAC 5-80-110 and Condition 26 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

7. Emissions from the mixing of resin and sand due to the operation of machine J92-1 (ACE35) shall not exceed the limits specified below:

   | | |
   |---|---|
   | VOC | 0.54 lb/hr |

   (9 VAC 5-80-110 and Condition 27 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

8. Annual emissions from the operation of the core making operation shall not exceed the limits specified below:

   | | |
   |---|---|
   | VOC (from resin usage) | 19.08 tons/year |
   | VOC (from TEA usage) | 3 tons/year |

   These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period using emission factor approved by the South Central Regional Office. Compliance with these emission limits may be determined as stated in Condition XI.A.3.

(9 VAC 5-80-110 and Condition 27 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

**B. Monitoring**

1. The scrubber shall be equipped with a flow meter to indicate scrubber solution flow rate to the spray nozzles, a pH meter to indicate the pH of the scrubber solution as applied, and a device to continuously measure the differential pressure drop across the packed bed. These devices shall be provided with alarms to advise of low solution flow rate, high solution pH, and high/low differential pressure.
(9 VAC 5-80-110 and Condition 7 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts that are needed to minimize duration of air pollution control equipment breakdowns.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 and Condition 40 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. At least one time per calendar week an observation of the presence of visible emissions from the scrubber stack (ACC16) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 10

percent opacity or less. If any of the 15-second observations exceeds 10 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 10 percent opacity.

The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the core making operations have not operated for any period during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

4. At least one time per calendar week an observation of the presence of visible emissions from the core making operations' stacks (ACPV36, ACPV37, and ACPV70) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

   The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the core making operations have not been operated for any period during the week, it shall be noted in the log book.
   (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

### C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. Annual consumption of core making resins in units of tons of resin per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. Annual consumption of triethylamine in units of tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   c. For each resin used, the results of the Ohio Cast Metals Association (OCMA) test, as approved by DEQ, showing 1 hour and 12 hour VOC emissions per pound of resin.

   d. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   e. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   f. Results of weekly opacity observations along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110 and Conditions 33.h., 33.i., and 33.m of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

## XII. Mold Sand and Core Sand Handling Systems

(ACE39, ACE24A, and ACE24B)

### A. Limitations

1. Particulate emissions from the mold sand and core sand handling systems (ACE39, ACE24A, ACE24B) shall be controlled by a fabric filter (ACDC12 through ACDC14). The fabric filter shall be provided with adequate access for inspection and shall be in operation when any sand handling equipment is operating.
   (9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The combined annual throughput of the mold sand and core sand handling systems (ACE39, ACE24A, ACE24B and including core mullers ACE25A1, ACE25A2,

ACE25B1, and ACE25B2) shall not exceed 1,330,560 tons of sand per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 11 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. Emissions from the operation of the mold sand and core sand handling systems (ACE39, ACE24A, ACE24B and including core mullers ACE25A1, ACE25A2, ACE25B1, and ACE25B2) shall not exceed the limits specified below:

| | | |
|---|---|---|
| Particulate Matter | 9.72 lbs/hr | 23.95 tons/yr |
| PM-10 | 9.72 lbs/hr | 23.95 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
(9 VAC 5-80-110 and Condition 28 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

4. Visible emissions from mold sand and core sand handling systems (ACE39, ACE24A, ACE24B) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

**B. Monitoring**

1. The fabric filter (ACDC12 through ACDC14) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. For the purposes of this permit, silo bin vents are not considered fabric filters requiring differential pressure drop measurement.
(9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

2. The fabric filter (ACDC12 through ACDC14) exhaust shall be equipped with a Tribosentry™ (or equivalent per DEQ approval) bag leak detector to measure relative particulate matter loading. The detector shall be equipped with an alarm that is activated when detection from the PM sensitivity setting is exceeded at the established response time. The establishment of the sensitivity and response time settings to be determined during the initial setup procedure. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.

(9 VAC 5-80-110 and Condition 4 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

3. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filters (ACDC12 through ACDC14) controlling particulate matter from the mold sand and core sand handling operations (ACE24A, ACE24B, and ACE39). The approved monitoring plan shall be the attached CAM Plan (Attachment A, Section 3.3) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XII.B.10; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XII.B.11; or (3) otherwise approved by the DEQ conforming with Condition XII.B.4 of this section, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

4. Each monitor shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:
   a. **Indicator**;
   b. **Measurement Approach**;
   c. **Indicator Range or Condition(s) for Range Development**; and
   d. The following **performance criteria**:
      i. **Data Representativeness**;
      ii. **Verification of Operational Status**;
      iii. **QA/QC Practices and Criteria**;
      iv. **Monitoring Frequency;**
      v. **Data Collection Procedures**;
      vi. **Averaging Period.**

   Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9 VAC 5-80-230.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

5. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

6. At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9 VAC 5-80-110 E and 40 CFR 64.7(b))

7. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in

continuous operation (or shall collect data at all required intervals) at all times that the mold sand and core sand handling equipment is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7(c))

8. Upon detecting an excursion or exceedance, the permittee shall restore operation of the mold sand and core sand handling equipment (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(1))

9. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))

10. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition XX.E) notify the Director, South Central Region and submit a revised CAM Plan for approval to the Director, South Central Region to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 E, 40 CFR 64.7(e), and 40 CFR 64.6(c))

11. If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the mold sand and core sand handling equipment for a semiannual reporting period, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to the CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the Director, South Central Region within 30 days of the revision date. For the purposes of this condition, the most recent version of the CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.
(9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

12. Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10.
(9 VAC 5-80-110 and 40 CFR 64.10)

13. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 F and 40 CFR 64.9(b))

14. The permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by Condition XX.C.3 of this permit to the Director, South Central Region. Such reports shall include at a minimum:

    a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

    b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and

    c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(9 VAC 5-80-110 F and 40 CFR 64.9(a))

15. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts that are needed to minimize the duration of air pollution control equipment breakdowns.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-80-110 and Condition 40 of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

16. At least one time per calendar week an observation of the presence of visible emissions from the mold sand and core sand handling system stacks (ACPV36 and ACPV37) shall be made. The presence of visible emissions shall require the permittee to:

    a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

    b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

    The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If mold sand and core sand handling system

operations have not been operated for any period during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

## C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The annual throughput of mold sand and core sand handling in units of tons of sand per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. For each bag leak detection system, records of monthly QA checks to include a response test and electronic drift checks (if applicable). The date, time, and condition of each sensor as-found and description of any actions taken should be recorded. Log entries should be signed by the person conducting the inspection, testing, or maintenance.

   c. For each bag leak detection system, records of an initial bag leak detector set up (per procedure), and any adjustments due to process changes. Documentation should include initial instrument settings (numerical if applicable) or description of how each setting (baseline (sensitivity), response time, and alarm level) is established.

   d. For each bag leak detection system, records of annual set up checks if the detector's settings have not been adjusted within a year. If process changes require system parameters to be adjusted, the date, description and reason for the adjustment should be documented and signed.

   e. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   f. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   g. Results of weekly opacity observations along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110 and Conditions 33.c, 33.j, 33.k, and 33.l of the 12/7/06 Permit as amended 2/14/07 and 4/30/07)

# XIII. Used/Waste Sand and Baghouse Dust Storage and Load-out System

(ACE47 through ACE53)

## A. Limitations

1. Particulate matter emissions from the silos (ACE47 and ACE48) shall be controlled by bin vent filters (ACDC16 and ACDC17). The bin vent filters shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 3 of the 6/25/01 Permit)

2. Fugitive dust emissions from the mixer and loadout (ACE53) shall be controlled by adequate enclosure and by the addition of water to the used/waste sand and baghouse dust mixture prior to loadout to comply with the permitted visible emission limit as stated in Condition XIII.A.5.
(9 VAC 5-80-110 and Condition 4 of the 6/25/01 Permit)

3. The throughput of the used/waste sand and baghouse dust storage and load-out system shall not exceed 66,588 tons per year, each calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 5 of the 6/25/01 Permit)

4. Visible emissions from the silo bin vent filters (ACDC16 and ACDC17) shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 6 of the 6/25/01 Permit)

5. Visible emissions from the load-out (ACE53) shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 7 of the 6/25/01 Permit)

6. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 14 of the 6/25/01 Permit)

**B. Monitoring**

1. At least one time per calendar week an observation of the presence of visible emissions from each silo bin vent filter (ACDC16 and ACDC17) shall be made. If visible emissions are observed, timely corrective action shall be taken such that the affected fabric filter resumes operation with no visible emissions. The permittee shall maintain a stack observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, any necessary corrective action, and the name of the observer. If the silos (ACDC16 or ACDC 17) have not been operated for any period during the week it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

2. At least one time per calendar week an observation of the presence of visible emissions from the load-out (ACE53) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 10 percent opacity or less. If any of the 15-second observations exceeds 10 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 10 percent opacity.

   The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the load-out (ACE53) system has not been operated for any period during the week, it shall be noted in the log book.
   (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

### C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The throughput of used/waste sand and baghouse dust in units of tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   b. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

   c. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   d. Results of weekly opacity observations along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110 and Condition 8 of the 6/25/01 Permit)

## XIV. Cupola Slag Processing Operation

(ACE54 through ACE57, ACE59, and ACE60)

### A. Limitations

1. The cupola slag processing operation (ACE54 through ACE57) shall only process cupola slag. A change in materials may require a permit to modify and operate.
   (9 VAC 5-80-110 and Condition 4 of the 9/5/01 Permit)

2. The two IC engines (ACE59 and ACE60) shall not operate more than 400 hours per year, each, calculated monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 5 of the 9/5/01 Permit)

3. The throughput of crushed cupola slag from the cupola slag processing operation (ACE54 through ACE57) shall not exceed 18,000 tpy, calculated monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 6 of the 9/5/01 Permit)

4. The approved fuel for the IC engines (ACE59 and ACE60) is distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under

the American Society for Testing and Materials, "Standard Specification for Fuel Oils". A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Conditions 7 and 8 of the 9/5/01 Permit)

5. Emissions from the operation of the two IC engine exhaust stacks (ACE59 and ACE60) shall not exceed the limits specified below

| | | |
|---|---|---|
| Nitrogen Oxides (as $NO_2$) | 5.09 lbs/hr | 1.0 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period.
(9 VAC 5-80-110 and Condition 10 of the 9/5/01 Permit)

6. Fugitive dust and fugitive emission controls shall include the following, or equivalent, as a minimum:

   a. Dust from material handling, screens, crushers, load-outs, and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ). The wet suppression spray systems shall be operated at optimum design, and pressure gauges shall be installed (with adequate access for inspection of the measuring device) to indicate system operating pressures.

   b. All material being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.

   c. Dust from haul roads and traffic areas shall be controlled by the application of asphalt, water, suitable chemicals, or equivalent methods approved by the DEQ.

   d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt, product, or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

   e. Volatile organic compounds shall not be intentionally spilled, discarded to sewers, stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.

   (9 VAC 5-80-110 and Condition 3 of the 9/5/01 Permit)

7. Visible emissions from the primary crusher (ACE54) shall not exceed 15 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 11 of the 9/5/01 Permit)

8. Visible emissions from screening (ACE55), stockpiles, storage bins, conveyor transfers (ACE56 and ACE57), and fugitive emission sources shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). (9 VAC 5-80-110 and Condition 12 of the 9/5/01 Permit)

9. Visible emissions from IC engine exhaust stacks (ACE59 and ACE60) shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 13 of the 9/5/01 Permit)

**B. Monitoring**

1. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the distillate oil was received;

   c. The volume of distillate oil (in gallons) delivered in the shipment;

   d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil; and

   e. A statement that the sulfur content of the distillate oil does not exceed 0.5% by weight.

   (9 VAC 5-80-110 and Condition 9 of the 9/5/01 Permit)

2. At least one time per calendar week an observation of the presence of visible emissions from the primary crusher (ACE54) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the affected stack with visible emissions resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the affected stack, in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 15 percent opacity or less. If any of the 15-second observations exceeds 15 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 15 percent opacity.

   The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or

not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the primary crusher (ACE54) has not been operated for any period during the week, it shall be noted in the log book.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

3. At least one time per calendar week an observation of the presence of visible emissions from the screen (ACE55), belt conveyors (ACE 56 - ACE57), and the IC engines (ACE59 and ACE60) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the affected stack(s) with visible emissions resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the affected stack(s), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 10 percent opacity or less. If any of the 15-second observations exceeds 10 percent opacity, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 10 percent opacity.

   The permittee shall maintain a stack observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the screen (ACE55), belt conveyors (ACE 56-ACE57), or the IC engines (ACE59 and ACE60) have not been operated for any period during the week, it shall be noted in the log book.
   (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

## C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. Annual throughput of crushed cupola slag, in tons, calculated monthly as the sum of each consecutive 12 month period.

   b. Annual operating hours for each IC engine, calculated monthly as the sum of each consecutive 12 month period.

   c. All fuel supplier certifications.

d. Operator logs of material processed by the cupola slag processing plant.

e. Copies of required notifications.

f. Operating procedures, maintenance schedules, and service records for all air pollution-related equipment.

g. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

h. Results of weekly opacity observations along with details regarding any necessary corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 14 of the 9/5/01 Permit)

# XV. Iron and Steel Foundries MACT Requirements (40 CFR 63 Subpart EEEEE)

## A. Applicable Requirements

1. The permittee shall comply with all applicable requirements of the Iron and Steel Foundries MACT, 40 CFR 63, Subpart EEEEE, by the applicable compliance date. (9 VAC 5-60-95, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 Subpart EEEEE)

# XVI. Surface Coating of Miscellaneous Metal Parts and Products MACT Requirements (40 CFR 63 Subpart MMMM)

## A. Miscellaneous Metal Coating MACT- General

This section of this permit is for the implementation of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart MMMM, referred to as the Subpart MMMM. Except where this permit is more restrictive, the permittee shall comply with the requirements of 40 CFR 63 Subpart MMMM.

1. Except as specified in subsections a and b of this condition, the permittee must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in Subpart MMMM that applies to the affected source by the applicable compliance date.

   a. The subpart does not apply to the source until the source uses more than 250 gallons, excluding non-HAP coatings as defined in 40 CFR 63.3981, in any 12-month period ending after January 2, 2007. The compliance date is defined as the

first day of the month directly following the first 12-month period in which the source uses more than 250 gallons of coating.

b. Regardless of subpart applicability as excluded in XVI.A.1.a, the permittee must maintain records of coating usage sufficient to determine applicability.

(9 VAC 5-80-110, 9 VAC 5-60-90 and 40 CFR 63.3881)

# XVII. Organic Liquids Distribution (Non-Gasoline) MACT Requirements (40 CFR 63 Subpart EEEE)

## A. Applicable Requirements

1. The permittee shall comply with all applicable requirements of the Organic Liquids Distribution (Non-Gasoline) MACT, 40 CFR 63, Subpart EEEE, by the applicable compliance date.
(9 VAC 5-60-95, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 Subpart EEEE)

# XVIII. Industrial, Commercial and Industrial Boilers and Process Heaters MACT Requirements (40 CFR 63 Subpart DDDDD)

## A. Applicable Requirements

1. The permittee shall comply with all applicable requirements of the Industrial, Commercial and Industrial Boilers and Process Heaters MACT, 40 CFR 63, Subpart DDDDD, by the applicable compliance date.
(9 VAC 5-60-95, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

# XIX. Facility Wide Conditions

## A. Limitations

1. Unless otherwise specified in this part, on or after the date on which the performance test required to be conducted by 9 VAC 5-50-30 is completed, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility (constructed, modified or relocated after March 17, 1972, or reconstructed on or after December 10, 1976) any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

### B. Periodic Monitoring

1. Each calendar week, the permittee shall perform a general visual survey of the facility for the presence of visible emissions to the atmosphere including visible emissions from non-powered vents and openings in buildings. The permittee shall submit a visible emission survey plan to the South Central Regional Office not later than 30 days after the date of this permit. The plan shall include a description of the survey methods to be used and the locations to be surveyed. Provisions in this plan should be made so that it is sufficiently flexible to include unexpected visible emission sources. The details of the survey plan are to be negotiated with and approved by the South Central Regional Office. For each location identified during the survey as having visible emissions, the permittee shall:

   a. take timely corrective action such that the source of the emissions resumes operation with no visible emissions, or

   b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure that visible emissions from the source of emissions do not exceed the relevant opacity standard. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second observations exceeds the relevant opacity value, the VEE shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to the relevant opacity value.

   The permittee shall maintain a log of the weekly surveys and observations to demonstrate compliance with this condition. The log shall include the name of the observer, the date and time of each weekly survey, and a description of the positions from which the survey was performed. For each location identified as having visible emissions, the log shall include any VEE recordings and a description of any corrective action taken. These logs shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 E)

## XX. General Conditions

### A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

## B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

## C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

## D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to DEQ and EPA no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

7. One copy of the annual compliance certification shall be sent to EPA at the following address:

   Clean Air Act Title V Compliance Certification (3AP00)
   U. S. Environmental Protection Agency, Region III
   1650 Arch Street
   Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

## E. Permit Deviation Reporting

The permittee shall notify the Director, South Central Region within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective

actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition XX.C.3 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

**F. Failure/Malfunction Reporting**

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, South Central Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, South Central Regional Office.
(9 VAC 5-20-180 C)

**G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

**H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

**I. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

## J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

## K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

## L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
   (9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
   (9 VAC 5-80-110 K.1)

## M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

## N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

**O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

**P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

## Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

## R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**S. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

**T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

**U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.

   d. The permittee notified the Board of the malfunction within two working days following the time when the emissions limitations were exceeded due to the

malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

**V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

**W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

**X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

## Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

## Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

## AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)